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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* PAT CONDON, MIKE FINUCANE, MAURICE HAYES,  
PATRICK O'GRADY, PAUL REID, DAVID SPEIGHT, JOHN WHITE

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Appeal 2007-3761  
Application 09/467,706  
Technology Center 3600

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Decided: January 14, 2008

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Before MURRIEL E. CRAWFORD, HUBERT C. LORIN, and  
MICHAEL W. O'NEILL, *Administrative Patent Judges*.

O'NEILL, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Condon, et al. (Appellants) seek our review under 35 U.S.C. § 134 of the final rejection of claims 1, 4, 12-16, and 19. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

## SUMMARY OF DECISION

We REVERSE.<sup>1</sup>

## THE INVENTION

The Appellants' claimed invention is to a method of automatically configuring a computer in accordance with a customer's requirements. (Specification 4:19-20.) A manufacturer provides a manufacturer web page unit, a manufacturer office unit, and a manufacturer plant. (Specification 6:6-14 and Fig. 2.) The general sequence of operations is presented in Figure 1. A customer places an order and receives a generated reference number. (Specification 5:7-8.) The order is down-loaded to the manufacturing plant and if any special configuration is required for the order, an auto-configuration indicator is included with the order. (Specification 5:9-11.) The process for any special configuration required by the customer occurs essentially in parallel with the standard order procedures. (Specification 5:12-15.) In order for the customer to be able to make the special configuration request, the manufacturer provides a web page for this purpose and the special configuration request via this web page is passed over the Internet to the manufacturer. (Specification 5:16-18 and 7:5-6.) A special configuration is a configuration that differs from the standard default configuration. (Specification 7:4-5.) The special configuration is passed to a validation system to verify whether the special

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<sup>1</sup> Our decision will make reference to Appellants' Appeal Brief ("App. Br.," filed Oct. 25, 2006), Reply Brief ("Reply Br.," filed Apr. 5, 2007), and the Examiner's Answer ("Answer," mailed Feb. 9, 2007).

configuration is consistent and within the range of special configurations the manufacturer can implement. (Specification 5:19-22.) The technical elements of the order are passed to a control unit in the manufacturing plant that controls the manufacture of the computer. (Specification 6:24-26.) Appropriate hardware is selected from the supply lines for the assemblage of the ordered computer. (Specification 6:27 to 7:1.) Likewise, appropriate software packages are selected from the supply lines and loaded onto the ordered computer. (Specification 7:2-3.) The web page that contains the special configuration is passed to the modification unit in the office unit. (Specification 7:12-13.) The special configuration details are then passed to a validation unit which is also provided the details of the customer's order from the order unit. (Specification 7:13-15.) The validation unit will check the compatibility of the special configuration details and the main order details and check the current capabilities of the manufacturer to insure compatibility between the manufacturer capability and the special configuration. (Specification 7:15-19.) Once the special configuration details are validated, they are made available to the manufacturer's control unit. (Specification 7:20-21.) The control unit detects any modification details, i.e. a flag for special configuration details, from the main order and obtains the corresponding configuration details from the modification unit. (Specification 7:21-23.) Next the control unit checks the special configuration details with a factory database to determine the best implementation of the special configuration details. (Specification 7:23-25.) The control unit then enters the appropriate data into the computer being

manufactured which includes entering the special configuration details into the appropriated software packages which are being loaded or have been loaded into the computer from the supply line. (Specification 7:25 to 8:1.)

Claim 1, reproduced below, is representative of the subject matter on appeal. The reference letters adjacent each limitation are present for ease of reading the claim and should not be construed as presenting the steps in any particular order.

1. A method of automatically manufacturing a computer comprising:
  - [a.]a manufacturer providing a manufacturer web page unit, a manufacturer office unit and a manufacturer plant;
  - [b.]a customer sending a main order for the computer to the office unit via a web page in the web page unit, the customer being required to indicate if a special configuration is desired;
  - [c.]passing elements of the main order to a control unit in the manufacturing plant unit;
  - [d.]the control unit controlling manufacturing and supply lines containing a plurality of compatible hardware and selected software components for installation into the computer being manufactured;
  - [e.]the customer entering any special configuration details to the web page unit;
  - [f.] passing the web page to a modification unit in the office unit;
  - [g.]passing the special configuration details to a validation unit in the office unit;
  - [h.]the validation unit checking the special configuration details for compatibility with details of the main order;

- [i.] upon validation, sending the special configuration details to the control unit;
- [j.] the control unit detecting any modification details in the main order details and obtaining corresponding configuration details from the modification unit;
- [k.] the control unit checking the configuration details with a factory database for implementation; and
- [l.] the control unit entering appropriate data into the computer being manufactured including entering modification details in appropriate ones of the selected software components which are being installed or have been installed in the computer.

#### THE PRIOR ART

The Examiner relies upon the following as evidence of unpatentability:

Kroening	US 6,080,207	Jun. 27, 2000
Knowles	US 6,182,897 B1	Feb. 6, 2001
Dharnipragada	US 6,490,493	Dec. 3, 2002

#### THE REJECTION

The following rejection is before us for review:

Claims 1, 4, 12-16, and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Dharnipragada in view of Kroening and further in view of Knowles.

#### ISSUE

The issue is whether the Appellants have shown the Examiner erred in rejecting claims 1, 4, 12-16, and 19 as unpatentable over Dharnipragada in view of Kroening and further in view of Knowles.<sup>2</sup> This issue turns on whether the cited prior art would have led one having ordinary skill in the art to have a process for manufacturing a computer with the handling and implementation of special configuration details that include the steps of “passing the special configuration details to a validation unit in the office unit; the validation unit checking the special configuration details for compatibility with details of the main order; upon validation, sending the special configuration details to the control unit; the control unit detecting any modification details in the main order details and obtaining corresponding configuration details from the modification unit; the control unit checking the configuration details with a factory database for implementation; and the control unit entering appropriate data into the computer being manufactured including entering modification details in appropriate ones of the selected software components which are being installed or have been installed in the computer” as claimed in claim 1.

#### FINDINGS OF FACT

We find that the following enumerated findings of fact are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849

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<sup>2</sup> Only those arguments actually made by Appellants have been considered in this decision. Arguments that Appellants could have made but chose not to make in the Briefs have not been considered and are deemed to be waived. See 37 C.F.R. § 41.37(c)(1)(vii) (2007).

F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

*The scope and content of the prior art*

1. Dharnipragada relates to software to assist industrial process engineers with specifying and managing process devices. (Dharnipragada, col. 1, ll. 4-9.) Examples of process devices are devices that perform measurements using pressure, flow, temperature, and level, and devices that perform process control such as valves, motors and switches. (Dharnipragada, col. 4, ll. 11-13.) Dharnipragada's software is an integration of process device: (1) requirement entry, (2) selection, (3) specification, and (4) ordering often done on different computers. (Dharnipragada, col. 2, ll. 64-67.) A relational database accommodates a process device configuration module that has a core set of tables for process device specifications and exception rules that identify selection and specification issues that allow expert rules to model process requirements against one or more process devices. (Dharnipragada, col. 3, ll. 53-62.) The software is set up as process device modules that allow the software to be customized for the user with any or all of the different modules for evaluating process devices used for measurement and control and includes features to permit importing process data, perform sizing and selection on the data, and then export the process device specifications. (Dharnipragada, col. 4, ll. 9-19.) The overall sequence for determining an appropriate processing device for a particular process application is: device requirement, device order, device evaluation, and

device management. The device requirement sequence receives the process requirement from a point in the process plant that is organized under a unique identifier known as a Tag. (Dharnipragada, col. 4, ll. 42-56.) The selection sequence evaluates the process requirements against existing process device data and assists the user in selecting a technology that meets the process device requirements and then applying the selected technology to the process requirements to define a specified process device. (Dharnipragada, col. 4, l. 66 to col. 5, l. 8.) The evaluation sequence includes the execution of numerous validation checks to ensure the process device selected is compatible with the process requirements. (Dharnipragada, col. 5, ll. 9-22.) Once the process device is selected the software will apply sizing algorithms to evaluate the performance characteristics of the selected technology and the user can reconsider and change the technology as desired. (Dharnipragada, col. 5, ll. 23-28.) The order sequence initiates the building of the specified process device by sending an order to the manufacturer. (Dharnipragada, col. 5, ll. 50-55.) A customer can change the order because the order is electronic and the change in the order would just be an electronic update and the process device would likely be built to the updated order if the update was received before building the process device. (Dharnipragada, col. 6, ll. 3-10.) If the change was after the beginning of manufacture, then the order database would be changed, but the device would be built to the original order. (Dharnipragada, col. 6, 11-15.) The evaluation sequence evaluates the built process device to obtain built process device data and

- each process device is calibrated according to the specification. (Dharnipragada, col. 6, ll. 20-28.) The management sequence places the built process device into a built database for the management purposes of comparison and maintenance. (Dharnipragada, col. 6, ll. 47-58.) The comparison sequence checks to see if the built process meets the process requirements by placing the built process device data and the ordered process device data into a discrepancy database. (Dharnipragada, col. 7, ll. 8-14.) The discrepancies between the ordered and built process devices are displayed and if the discrepancy is unacceptable the device would be reordered. (Dharnipragada, col. 7. ll. 42-60.) The maintenance sequence receives requests for replacement of built process devices and orders a replacement from the manufacturer. (Dharnipragada, col. 8, ll. 1-10.)
2. Kroening teaches a system for generating custom software configurations for computer hard drives according to wishes of customers. (Kroening, Abstract.) A bill of materials is established that includes a customer's selection of desired software for a computer. (Kroening, col. 4, ll. 10-12.) The desired configuration may be an upgrade to an application already installed on the computer or a new hard drive that is to be configured with an operating system and applications. (Kroening, col. 4, ll. 34-38.) The mechanism that performs the custom software configuration is an image builder. The image builder is a device that surveys a database of software configurations to identify a matching configuration or identify a baseline configuration. (Kroening, col. 2, ll.

- 6-9.) Once the baseline is identified the image builder performs a comparison to create a set of changes to combine with or edit into the baseline image “picture” to generate the desired software configuration. (Kroening, col. 2, ll. 10-13.) Next the image builder goes through the baseline image file by file, identifies the differences, and determines what needs to be replaced. (Kroening, col. 5, ll. 11-13.) In addition, the image builder performs a task of determining changes that need to be made in the registry and interrupt settings in order for the software configuration to work properly. (Kroening, col. 5, ll. 28-22.) The image builder will reject any bill of materials as a non-functional configuration, if the software configuration is not compatible with the hardware of the computer. (Kroening, col. 5, ll. 22-26.) If the configuration is compatible, the image is loaded onto the hard drive by methods known in the art. (Kroening, col. 5, ll. 27-36.)
3. Knowles teaches designing and manufacturing laser scanner using wide area networks such as the Internet. (Knowles, col. 1, ll. 16-18.) The customer accesses a website to order a scanner. (Knowles, col. 4, ll. 1-5.) The customer provides the end-user scanning requirements at the website using HTML forms. (Knowles, col. 4, ll. 36-46.) The system takes the requirements provided by the customer and with the modular components stored within its database generates a complete model of a laser scanner that satisfies the requirements. (Knowles, col. 4, ll. 51-62.) The system will then test the model design to see whether customer’s requirements are met and if met generate a cost for the final product. (Knowles, col. 5,

ll. 6-16.) If the customer is satisfied with the design, a purchase may be made by the customer. (Knowles, col. 5, ll. 37-42.) If the customer has made a purchase order, the customer may track the progress of manufacture of the laser scanner. (Knowles, col. 5, ll. 49-53.)

*The level of skill in the art*

4. Neither the Examiner nor Appellants have addressed the level of ordinary skill in the pertinent arts of configuring computers. As such, we will therefore consider the cited prior art as representative of the level of ordinary skill in the art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (“[T]he absence of specific findings on the level of skill in the art does not give rise to reversible error ‘where the prior art itself reflects an appropriate level and a need for testimony is not shown.’”) (quoting *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 807 F.2d 955, 963 (Fed. Cir. 1985)).

*Secondary considerations*

5. There is no evidence on record of secondary considerations of non-obviousness for our consideration.

#### PRINCIPLES OF LAW

Claims are given the broadest reasonable construction consistent with the specification. *In re Morris*, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997). “Words which are defined in the specification must be given the same meaning when used in a claim.” *McGill, Inc. v. John Zink Co.*, 736 F.2d 666, 674 (Fed. Cir.), cert. denied, 469 U.S. 1037 (1984).

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 127 S.Ct. at 1734 (“While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.”)

It is elementary that to support an obviousness rejection, all of the claim limitations must be taught or suggested by the prior art applied (*see In re Royka*, 490 F.2d 981, 984-85 (CCPA 1974)) and that all words in a claim must be considered in judging the patentability of that claim against the prior art (*In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970)).

## ANALYSIS

*Rejection of claims 1, 4, 12-16, and 19 as unpatentable over Dharnipragada, Kroening, and Knowles*

The Examiner found that Dharnipragada teaches a customer entering special configuration details in a computer in column 5, line 1 through

column 6, line 19 and checking configuration details with a database to determine implementation in column 7, lines 1 through 63. (Answer, 3.) The Specification defines the term “special configuration” as: “a configuration which differs from the standard default configuration.” (Specification 7:4-5.) Thus, in light of the Specification, the broadest reasonable construction of the claim as it would be interpreted by one of ordinary skill in the art is that the claim term “special configuration” means “a configuration which differs from the standard default configuration.”

The Examiner, however, has construed the term “special configuration” differently. What the Examiner has identified as meeting the “special configuration details” is in actuality the selection sequence evaluating the process requirements against existing process device data and assisting the user in selecting a technology that meets the process device requirements and then applying the selected technology to the process requirements to define a specified process device and the ability of the customer to change the order with pre-production and post-production consequences. (Finding of Fact 2.) As such, the “special configuration details” the Examiner is referring to is just the customer selecting of components to build the process device and the customer having the capability of changing the order. This is inconsistent with the broadest reasonable construction to be given the term “special configuration” in light of Specification.

The Appellant argues that Dharnipragada, in addition, lacks a teaching of the claim limitations of “passing the special configuration details to a

validation unit in the office unit; the validation unit checking the special configuration details for compatibility with details of the main order; upon validation, sending the special configuration details to the control unit; the control unit detecting any modification details in the main order details and obtaining corresponding configuration details from the modification unit; the control unit checking the configuration details with a factory database for implementation; and the control unit entering appropriate data into the computer being manufactured including entering modification details in appropriate ones of the selected software components which are being installed or have been installed in the computer.” (App. Br. 8-9.) We agree. We are unable to find these limitations disclosed in Dharnipragada.

(Finding of Fact 2.)

*Teachings of Kroening and Knowles*

We do not see where Kroening corrects the deficiencies found in Dharnipragada with respect to providing a teaching of permitting a customer to indicate a “special configuration” or the other steps outlined *supra*. (Finding of Fact 2.) Further, we do not see where the Examiner has identified where Knowles would cure the deficiencies found in Dharnipragada. (Finding of Fact 3.)

CONCLUSION OF LAW

We conclude the Appellants have shown that the Examiner erred in rejecting claims 1, 4, 12-16, and 19 as unpatentable over Dharnipragada, Kroening, and Knowles.

#### DECISION

The decision of the Examiner to reject claims 1, 4, 12-16, and 19 is reversed.

REVERSED

JRG

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